

Application No. 10/079,293
Amendment Date Jun 29, 2003
Reply to Office Action of March 11, 2003

REMARKS

The above amendments and these remarks are responsive to the Office action mailed on March 11, 2003. Claims 13, 14, 16, 21 and 22 have been amended. Claim 18 has been cancelled. Claims 25-33 have been added. Claims 9-17 and 19-33 are now pending in this application. Reconsideration on the basis of the above amendments and remarks below is kindly requested.

The Examiner rejected claims 13, 14 and 22 under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. Applicants respectfully disagree.

Claims 13, 14 and 22 have been amended by changing the term "non-planar" to "non-uniform". Claim 13 is directed to a cutting element having a hard material body having an end surface having an uncanted portion, wherein the uncanted portion is non-uniform. Claim 14 is directed to a cutting element having a hard material body having an end surface having an uncanted portion comprising a non-uniform portion. Claim 22 is directed to a cutting element having a hard material body having an end surface having an uncanted portion where a non-uniform portion is formed on the uncanted portion. As shown in FIGS. 7A-7D, the end surface of the hard material body can be formed by a series of steps which may define the canted portion. However, one of the end steps, i.e., the steps adjacent to either point 126 or point 128 shown in FIGS. 7A-7D may be considered to form an uncanted portion and the remaining steps may be considered to form the canted portion. As can be seen from Figure 7D, such steps forming the uncanted portion may include non-uniformities thus making them non-uniform. Furthermore, on page 6, lines 18-19, it is stated that "the steps 140 may have upper surfaces 142 which are non-uniform (FIG. 7D)". Moreover, on FIG. 9F, the rightmost portion of the hard material body end surface may be deemed to be uncanted and non-

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uniform. As such, Applicants submit that support for claims 13, 14 and 22 is found in the application as originally filed and the rejection to such claims under 35 USC §112, first paragraph should be withdrawn.

The Examiner rejected claims 16-22 and 24 under 35 U.S.C. §112, second paragraph. Claim 16 has been amended to overcome this rejection.

The Examiner rejected claims 9-11, 12 and 15-24 under 35 U.S.C. §102(e) as being anticipated by Matthias (U.S. Patent 6,082,474). Applicants respectfully disagree. For example, claim 10 is directed to a cutting element having a hard material body having an end surface having a canted portion that intersects a periphery of the hard material body along a periphery line, wherein the periphery line continuously extends around more than half of the circumference and wherein the entire periphery line extends along a plane. The entire periphery line shown in Figures 18 and 19 of Matthias relied on by the Examiner, does not extend along a plane as required by claim 10.

Nevertheless, Applicant submits that the embodiments of Figures 18 and 19 of Matthias are not prior art to the present application. Matthias is a continuation-in-part application of Application Serial No. 09/008,051, which was filed January 16, 1998, and which issued as U.S. Patent 6,011,232 (the "'232 patent") and claims priority of United Kingdom Application No. 9811560 ("UK '560") having a filing date of June 1, 1998 and United Kingdom Application No. 9715771 ("UK '771") having a filing date of July 26, 1997. UK '560 claims priority on UK '771. In rejecting claims 9-12 and 15-21, the Examiner relied on the embodiments disclosed in Figures 18 and 19 of Matthias. These embodiments were not disclosed in the '232 patent nor in UK '771. These embodiments are only disclosed in UK '560, which has a filing date of June 1, 1998. As can be seen from the declaration of the inventors under 37 C.F.R. §1.131, which is concurrently submitted herewith, the claimed invention was conceived December 30, 1997 or earlier and was reduced to practice on February 12, 1998, prior to the

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filing date of June 1, 1998 of UK '560. As such, the embodiments relied upon by the Examiner to reject claims 9-12, 15-21, 23 and 24 are not prior art to the above-referenced application.

In rejecting claim 22 over Matthias, the Examiner relied on Figures 3 or 4 of Matthias. Claim 22 as now amended is directed to a cutting element comprising a hard material body having an end surface bounded by a periphery and a canted portion extending to the periphery wherein the canted portion intersects the periphery along a periphery line, and wherein the entire periphery line extends along a plane. The entire periphery line of the alleged canted portion disclosed in Figures 3 or 4 of Matthias do not extend along a plane. As such, Applicants submit that claim 22 is not anticipated by Figures 3 or 4 of Matthias.

The Examiner rejected claims 16, 19, 20, 21 and 24 under 35 U.S.C. §102(e) as being clearly anticipated by Figures 5-9C of Jurewicz, U.S. Patent No. 6,068,071. The Examiner also rejected claims 16, 19, 20, 21, 22 and 24 under 35 U.S.C. §102(e) as being clearly anticipated by Figures 3A-6C of Scott et al., U.S. Patent No. 6,202,771. Applicants respectfully disagree. Claim 16 as now amended requires that the canted portion intersects the periphery along a periphery line and that the entire periphery line extends along a plane. The periphery lines disclosed in Figures 5-9C of Jurewicz do not extend along a plane. Similarly, the periphery lines disclosed in Figures 3A-6C of Scott et al. do not extend along a plane. As such, Applicants submit that claim 16 as now amended is not anticipated by either Jurewicz nor Scott et al. Claims 19, 20, 21, 22 and 24 are directly or indirectly depended from claim 16. Claim 16 is now believed to be in condition for allowance. As such, Applicants submit that claims 19, 20, 21, 22 and 24 are also in condition for allowance as being depended from an allowable base claim and for the additional limitations they contain therein.

Claims 25-33 have been added and directed to subject matter disclosed in the application as originally filed. No new matter has

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been added. Claim 26 is original claim 17 rewritten in independent form, including all limitations of its base claim and any intervening claims. Claim 27 is claim 22 rewritten in independent form, including all limitations of its base claim and any intervening claims. It should be noted that claim 27 requires "a non-uniform portion", whereas claim 22 required a "non-planar portion". Both claims 17 and 22 were rejected over Matthias. Matthias is no longer believed to be prior art to the above-referenced application. As such, Applicants submit that claims 26 and 27 are in condition for allowance.

Claim 28 is directed to a cutting element having a hard material body having an end surface having a canted portion intersecting a periphery along a periphery line which extends along a plane. Claim 29 is directed to a cutting element comprising a hard material body having a canted portion intersecting a periphery along a single periphery line extending along a plane. As discussed, neither Jurewicz nor Scott disclose a cutting element having a canted portion intersecting a periphery of the hard material body along a line which extends along a plane. As such, Applicants submit that claims 28 and 29 are also allowable over Jurewicz and Scott.

Claims 30-33 are directly or indirectly depended from claim 29. Claim 29 is now believed to be in condition for allowance. As such, Applicants submit that claims 30-33 are also in condition for allowance as being depended from an allowable base claim and for the additional limitations they contain therein.

The Examiner rejected claims 9-24 under the judicially created doctrine of double patenting over claims 6-33 of U.S. Patent No. 6,202,772. A Terminal Disclaimer is being filed concurrently herewith to overcome this rejection.

The Examiner objected to the specification based on informality. The specification has been amended to overcome this objection.

The Examiner objected to the drawings under 37 C.F.R. §1.83(a) in that the drawings must show every feature of the invention specified in the claims, and, as such, the uncanted portion that is

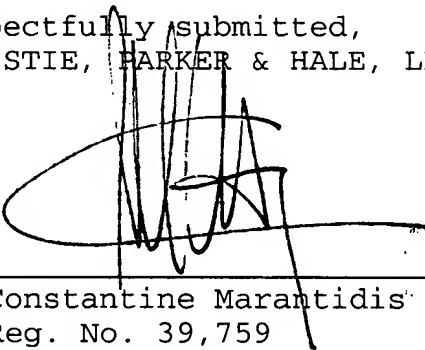
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non-planar or comprises a non-planar portion as recited in claims 13, 14 and 22 must be shown, or the feature canceled from the claims. As discussed, Figure 7D and 9F already disclose an uncanted portion comprising a non-planar portion or a non-uniform portion, as required by claims 13, 14 and 22.

The rejections and objections to all claims pending in this application are believed to be overcome, and this application is now believed to be in condition for allowance. Should the Examiner have any remaining questions or concerns about the allowability of this application, the Examiner is kindly requested to call the undersigned attorney to discuss them.

Respectfully submitted,
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